Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Air Quality

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Application, Instructions & Support Material (PDF Version)

Table of Contents

- This file, ***"Entire package as Adobe Acrobat PDF File"*** is in a PDF format. It contains both the instructions and application forms in a single file, however this file may only be viewed and printed without alteration. It does not allow users to enter information.

- A second file, ***"Instructions and Support Materials in MSWord Format,"*** contains a series of documents providing guidance in preparing an application for a BWP AQ18, Emission Reduction Credit Certification. Although we recommend you print out the full package of application instructions and support materials, you may choose to print specific documents by selecting the appropriate page numbers for printing.

- A separate file containing forms that must be filled out and returned to DEP or third parties is available in the "Application forms in MS Word Format" in the Air Quality section of the DEP Web site.

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Permit Fact Sheet

Purpose of Permit

The purpose of this permit is to certify eligible emission reductions as Emission Reduction Credits that may be used in emission banking and trading transactions.

Who Must Apply?

Participation in the Massachusetts Emission Banking and Trading Program is voluntary. There is no requirement to apply for Emission Reduction Credits.

What other requirements should be considered when applying for these permits?

If filing for prospective rate-based credits it may be necessary to modify existing permits (e.g. New Source Review, RACT Emission Control Plan, and/or Operating Permit) prior to the certification of ERC.
If the emission reductions are to be obtained through the modification of existing equipment or installation of new equipment, additional application forms may be necessary.
In such cases, please contact the appropriate DEP regional office for guidance before applying.

Application fee

The application fee for BWP AQ 18 is a function of the quantity of Emission Reduction Credit being certified.

- $1,000 for emission reduction credits greater than or equal to 5 but less than 10 tons or tons per year ERC
- $5,000 for emission reduction credits greater than or equal to 10 but less than 50 tons or tons per year ERC
- $7,500 for emission reduction credits greater than or equal to 50 but less than 100 tons or tons per year ERC
- $12,500 for emission reduction credits greater than or equal to 100 but less than 500 tons or tons per year ERC
- $15,000 for emission reduction credits greater than or equal to 500 tons or tons per year ERC

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Where do I send my completed application?

Primary Permit Location:

BWP AQ 18 permit applications should be submitted in duplicate to the DEP Regional Office responsible for the community in which the facility generating the ERC is located.

Department of Environmental Protection
BWP Permitting Program, Air Quality Section
_____* Regional Office

A list of addresses for DEP Regional Offices and the Communities they serve can be found elsewhere in this application package.

What are the timelines

BWP AQ 18 applications are subject to the following timelines:

Administrative Completeness Review
Within 60 days of receipt of an application and payment of the permit application fee the Department shall complete an administrative completeness review.

Technical Review
Within 60 days of making a determination of administrative completeness, the Department shall complete technical review.

Supplemental Technical Review (only if needed)
Within 60 days of receipt of materials from the applicant in response to the Department's statement identifying deficiencies, if any, the Department shall complete supplemental technical review.

What is the Annual Compliance fee

The amount of the annual compliance assurance fee depends upon the facility's potential emissions. Please consult Table 4.03 (Air Quality Section) of 310 CMR 4.03 for more information. If you fail to pay the bill for your annual compliance assurance fee, your permit to operate could be suspended or revoked.

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How long are these permits in effect?

ERC in the Rate ERC Bank will revert to the state to be retired for the benefit of the environment if they have not been used by midnight of the date ten years from the date of Department approval. ERC in the Mass ERC Bank will not expire or cease to exist after a set period of time, even if not traded or used.

How do I avoid common mistakes?

- Answer all questions on the application form and indicate "N/A" (not applicable) where appropriate.
- Be sure to have a legally responsible company official sign the application.
- Submit two copies of the application to the regional office (one of which must contain an original signature).
- Submit the BWP AQ 18 fee of:
  - $1,000 for emission reduction credits greater than or equal to 5 but less than 10 tons or tons per year ERC
  - $5,000 for emission reduction credits greater than or equal to 10 but less than 50 tons or tons per year ERC
  - $7,500 for emission reduction credits greater than or equal to 50 but less than 100 tons or tons per year ERC
  - $12,500 for emission reduction credits greater than or equal to 100 but less than 500 tons or tons per year ERC
  - $15,000 for emission reduction credits greater than or equal to 500 tons or tons per year ERC

and a copy of the DEP transmittal Form to:

Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

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What regulations apply to these permits?

These regulations include, but are not limited to:

- Air Quality Control Regulations, 310 CMR 7.00: Appendix B
- Timely Action and Fee Provisions, 310 CMR 4.00
- Administrative Penalty Regulations, 310 CMR 5.00

How do I get copies?

These may be purchased at:

State Bookstore
MA State House, Room 116
Boston, MA 02133
617-727-2834

State Bookstore – West
436 Dwight Street
Springfield, MA 01103
413-784-1376

Questions And Answers on Massachusetts Emissions Trading Program

General

1. What is the Massachusetts Emissions Trading Program?

The Massachusetts Emissions Trading Program provides a voluntary mechanism for companies, individuals and businesses to turn emission reductions into marketable emission reduction credits (ERC). ERC can, in turn, be purchased and used by companies, individuals or businesses that want to build new facilities expand production or use them in a compliance plan.

2. What makes the Massachusetts Emissions Trading Program innovative?

The Massachusetts Emissions Trading Program introduces a market-based program into the mix of programs used to achieve clean air goals. This is a radical departure from traditional "command and control" approaches to air pollution control, and could foster significant gains in pollution prevention and source reduction. The program encourages large and small emission sources to make earlier or greater reductions in emissions than would otherwise be required by the Clean Air Act and, most radically, allows inter-sector trading of ERC to effect pollution control on a least-cost basis. This rule is voluntary in that companies, persons and business can choose whether or not they wish to participate.

3. Why adopt this program in Massachusetts?

The Clean Air Act Amendments of 1990 require that any major new or expanded facility offset increases in emissions with decreases in emissions either within the plant or from other parties. In addition, the State Implementation Plan for Ozone will impose increased control requirements on business and industry. These control costs can be reduced through the use of the Massachusetts Emissions Trading Program, where least-cost reductions in emissions can be made and sold to others whose cost of compliance may be significantly higher.

4. What pollutants are involved?

At this time, the program will only consider emission reductions for credit from three pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and volatile organic compounds (VOC).

5. How can the Department of Environmental Protection (DEP) assure that this program will not interfere with attainment and maintenance of air quality standards?

The program has been set up to only allow credit for real emission reductions in excess of those required to achieve air quality standards. When ERC are used, some (e.g., NO_2) will be subject to air assessment modeling to ensure that there are no localized health impacts. Finally, the DEP has gone one step further to place in the regulation a requirement that the DEP or an independent third party audit the program every three years. Revisions to the program would be made, if it is found that the program would, in any way, interfere with attainment of health based standards.

6. Do other states have this program?

There are existing banking and trading programs in other states including New York, New Jersey, Washington and California. The EPA has encouraged states to look into more flexible market based programs through the EPA Economic Incentive Program Guidance.

7. What prohibitions exist in the rule?

The rule does not allow inter-pollutant trading (e.g., trading NOx reductions for VOC emission increases). Interstate trading can be done only if Massachusetts has executed a Memorandum of Understanding (MOU) concerning emission trading with the other state. Currently Maine is the only state with which Massachusetts has an MOU. However, Massachusetts is also working with the Ozone Transport Commission on a regional trading program to be recommended sometime in the future.

Creation of Credits

8. What requirements do emission reductions have to meet to become certified as credits?

To be considered for certification as credits, emission reductions must meet five "tests." Credits can only be generated for emission reductions, which are:

- Real, in that the emission reduction is real if it is a reduction in actual emissions to the air, net of any consequential ancillary increases resulting from shifting demand.

- Quantifiable, meaning that the reduction has been calculated using a reliable and replicable basis for calculating the amount and rate of the emission reduction that is acceptable to the DEP and to the EPA

- Surplus means emission reductions in excess of an established baseline, which are not required by either the current State Implementation Plan or the Clean Air Act, are not relied upon by any applicable attainment plan or are not determined to be necessary to achieve National Ambient Air Quality Standards.

- Enforceable, in that the reductions can be assured to have actually taken place and the terms of the credit are codified by a state and federally enforceable permit.

- Permanent, which is a reduction in emissions, which occurred for the entire duration of the emission reduction strategy. This does not require that the strategy itself continue forever, allowing credits to be generated on a discrete as well as a continuous basis.

9. What kinds of emission reductions may be considered for credit?

Emission reductions considered eligible for consideration as ERC include:

- Shutdown or curtailment provided that the applicant can demonstrate to the satisfaction of the Department that demand for the services or product will not or cannot shift to other similar sources in the State resulting in no net decrease in emissions from the source category. Where emission reductions from shutdowns of electric generating facilities will be used exclusively as offsets for new facilities pursuant to 310 CMR 7.00 ***Appendix A***, the ERC will not be adjusted for shifting demand. If such reductions are to be deposited in the Mass ERC Bank, credit will be available only to the extent that the emission rate from the unit being shut down or curtailed is greater than the applicable ISO New England marginal emission rate or successor organization rate.

- Control of an emission unit beyond that required by Massachusetts Air Pollution Regulations or federal law and regulations.

- Seasonal Controls with the recognition that VOC and NOx emission reductions created by the application of seasonal controls will be subject to use restrictions as defined in 310 CMR 7.00: ***Appendix B***(3)(e)8.

- Early implementation of future emission controls provided that the reductions commence before promulgation of the regulations establishing the new emission controls. These reductions are surplus only up to the effective date for compliance with the program or emission controls. Credit will cease to accrue upon the effective date of the new emission controls.

- Emission reductions which result from application of mobile and area source controls provided that the reductions meet all other requirements of 310 CMR 7.00: ***Appendix B***

including provisions for establishment of baseline and replicable quantification as well as compliance monitoring methods.

- Emission reductions are not eligible for consideration as an ERC if said reductions are generated by an un-inventoried area source category (***e.g.***, small bakeries) or if said reductions are generated by biogenic sources (***e.g.***, trees).

10. What is the purpose of the Mass ERC Bank and the Rate ERC Bank?

ERC certified from discrete, retrospective reductions shall be expressed in total tons and will be placed in the Mass ERC Bank. ERC from the Mass ERC Bank may be used as offsets pursuant to 310 CMR 7.00: Appendix A with approval of the Department. ERC certified from either shutdowns or enforceable prospective over-control of emissions shall be expressed in tons per year, and will be placed in the Rate ERC Bank. In the event the owner of ERC from a shutdown wishes to transfer the ERC to the Mass ERC Bank, the Department will assign the ERC from the shutdown a "remaining useful life" in years. If the ERC transferred are from shutdown of an electric generating facility, the Department will also subtract the ISO New England marginal emission rate or successor organization rate for replacement power in effect at the time of original certification of the ERC. ERC converted from rate based ERC to mass based ERC may not be converted back to rate based ERC. ERC in the Rate ERC Bank shall revert to the state to be retired for the benefit of the environment if they have not been used by midnight of the date 10 years from the date of Department approval. ERC in the Mass ERC Bank shall not expire or cease to exist after a set period of time, even if not traded or used.

11. Can credits be created by shutdown?

Yes. Frequently an emission unit will be shut down as part of a plant expansion or modernization. In order to allow the reductions from the shutdown to be used as offsets for the plant to upgrade, the DEP is allowing credits to be generated from emissions reductions that are the result of a shutdown. ERC approved from shutdown or curtailment of an emission unit where the emitting operations are based on manufacturing activity and the operations, and jobs associated with the emitting activity are shifted outside of Massachusetts, are eligible for use only in Massachusetts. This provision does not apply to electric generating facilities. ERC generated by shutdowns are presumptively available only for offsets pursuant to 310 CMR 7.00: Appendix A. If at any time prior to use of ERC as offsets an owner of said ERC wishes to use them for compliance purposes, the Department will assign a "remaining useful life" to said ERC. The "remaining useful life" will be used to transfer the ERC from the Rate ERC Bank to the Mass ERC Bank. If the ERC were generated by an electric generating facility shutdown, the Department will also subtract the ISO New England marginal emission rate or successor organization rate in effect at the time of original ERC certification. Offset credits generated outside of the Commonwealth of Massachusetts are not eligible for conversion to mass-based credits.

12. Can credits be created by application of state-only BACT requirements?

No. Since the state's permitting program, which requires application of BACT to modifications smaller than would otherwise be required under federal rule, is part of the State Implementation Plan, application of state BACT does not create a "surplus" emission reduction, and therefore cannot create an ERC.

13. What is the certification process?

There is a standard application form, BWP AQ18. An application fee is required based on the amount of ERC receiving certification. The application must be prepared by a qualified professional and must contain detailed information on the baseline emissions as well as the emission reductions proposed and the method for assuring the validity of the reductions.

14. What are the application fees?

The application fee for BWP AQ 18 is a function of the quantity of Emission Reduction Credit being certified.

$1,000 greater than or equal to 5 but less than 10 tons or tons per year ERC
$5,000 greater than or equal to 10 but less than 50 tons or tons per year ERC
$7,500 greater than or equal to 50 but less than 100 tons or tons per year ERC
$12,500 greater than or equal to 100 but less than 500 tons or tons per year ERC
$15,000 greater than or equal to 500 tons or tons per year ERC

See 310 CMR 4.10 (l) 4.

15. What are the application review timelines?

The DEP has 60 days to review the applications for completeness and 60 days for a technical review. In Addition, the DEP has 60 days after submittal of material by the applicant addressing deficiencies. Within 45 days after the close of public comment, including any public hearing, the Department shall complete public comment review and issue a final decision. See 310 CMR 4.10(l)3a. through d.

16. Will creators of mobile source credits need to obtain permits?

Yes. The regulation establishes a permit mechanism as part of the certification of ERC for all types of sources, including area and mobile sources which have not been traditionally "permitted" in the past.

17. Do the reductions have to be implemented before I can apply for certification?

No, an application for certification of ERC may be submitted in advance of the time when the reduction is actually made (prospective certification) or after the reduction has been made (retrospective certification). However, the reductions have to be implemented before another party can use the credits for compliance or to offset emission increases.

18. Can I apply for reductions made in the past?

The regulation allows applications for reductions made since 1990. This can be for continuous reductions that were implemented in 1991 and are still in place today or it can be for discrete reductions made once for a limited time period.

19. Are there any limits on when I can apply?

Yes, for emission reductions implemented after January 1, 1994, an Emission Reduction Credit Application must be submitted to the Department either within six months of the end date of the period being evaluated for a retrospective discrete emission reductions or the approval date of a federally enforceable mechanism for prospective emission reductions other than 310 CMR 7.00 ***Appendix B***(3).

20. What responsibility does the credit creator have?

The creator of the credit is responsible for making sure the credit remains valid. Since the DEP will be certifying credit, in some cases in advance of the reductions having been achieved, the burden of achieving the full reduction on which the credit is based is on the creator. To ensure that the credits remain valid once achieved, the credit creator will be required to keep records, test and/or monitor the post-reduction emissions to show that the emission reductions on which the credit is based remain real.

21. Can one get information on credits that have been certified by the DEP?

Yes. Once certified, the credits are registered in the Emission Reduction Credit Registry. The registry is a simple register that will provide information on the name, address and contact person for each certified credit, the pollutant on which the credit is based, and any seasonal or temporal restrictions on the credit. This information is available to anyone who requests it.

Credit Creation: Calculating the Credit

22. How is the amount of credit determined?

Credit shall be calculated by first calculating baseline emissions, second calculating the post reduction emissions, and third multiplying the difference between the baseline emissions and post reduction emissions by the applicable compliance assurance factor. The ERC amount is the result of complete application of these three steps.

23. Once credits are certified, how long do they last?

ERC in the Rate ERC Bank shall revert to the state to be retired for the benefit of the environment if they have not been used by midnight of the date 10 years from the date of Department approval. ERC in the Mass ERC Bank shall not expire or cease to exist after a set period of time, even if not traded or used.

Use of Credits

24. How can credits be used?

The goal of the program, defined by 310 CMR 7.00: ***Appendix B***(3), is to encourage the creation and trading of surplus emission reductions as ERC to be used for purposes of offsets, netting and cost effective compliance without interfering with any applicable requirements concerning attainment, reasonable further progress or any other applicable air pollution control requirement.

25. Is there anything credits can not be used for?

Credits can **not** be used to meet performance standard requirements of the regulations. By performance standard, the DEP means that credits cannot be used to avoid regulatory requirements on material handling and maintenance such as covering degreasers, proper solvent handling techniques, or to avoid having your car tested in the I/M program. Also, you can not use credits to satisfy federal requirements for Best Available Control Technology (BACT), Lowest Achievable Emission Rate (LAER), Maximum Achievable Control Technology (MACT)- air toxics, New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAPS).

26. What responsibilities does a credit purchaser have?

Any person who is permitted or regulated is responsible for meeting the requirements of the permit or regulation. If the source believes that purchasing credits can provide some portion of its compliance, it needs to assure that the credits purchased adequately provides the compliance increment needed for the time period involved. In the event a person purchases discrete credits or credits that cease to accrue with adoption of a new regulation, the purchaser must maintain the credit increment being used for compliance. In some cases this may mean purchasing new credits to replace those credits that have expired or ceased to accrue.

27. Can ERC generated by mobile source reductions be used by industry?

Yes. Inter-sector trading is allowed. However, a stipulation that credits created by reductions at stationary sources cannot be used in place of compliance with mobile source programs required under the Clean Air Act or State Implementation Plan. Such as, automobile inspection and maintenance, reformulated or oxygenated fuel, clean fuel fleets, ridesharing and Low Emission Vehicles.

28. Can ERC be used in any amount?

Yes. However, such uses must not interfere with applicable requirements concerning attainment, reasonable further progress or any other applicable air pollution control requirement.

29. Are there any other ERC use restrictions?

Yes. **Please Note**: parties that use ERC must hold or own an amount 5% greater than that which they need to satisfy their offset or compliance calculations. The company must hold said 5% increment in escrow until the DEP releases it for use.

30. How many years of credits for offsets must applicants have for a complete application under New Source Review (310 CMR 7.00 Appendix A)?

ERC from the Rate ERC Bank used as offsets pursuant to a 310 CMR 7.00: ***Appendix A*** approval, must be retired at the approved annual offset rate regardless of the facility's annual actual emissions. However, ERC from the Mass ERC Bank used as offsets pursuant to a 310 CMR 7.00 ***Appendix A*** approval, must be obtained for the current year of operation plus four subsequent years of operation. Five years of ERC, available for use in each of those five years, must be held at all times for the approval to remain valid. These ERC will be retired on December 31 of each year, beginning with the first calendar year or any portion thereof, in which the facility operates.

31. How can one use seasonal or "discrete" credits?

- Seasonal credits are reductions accrued over a short time period. They are called discrete credits because they are one-time or periodic, and not continuous. These credits can be used in a variety of ways.

- There are some additional conditions regarding use of seasonal credits. For example, if the credit was generated during the summer ozone season (May 1 through September 30) for an ozone precursor (VOC or NOx), it can be used year-round. If, however, the credit was generated in the winter or outside the ozone season for ozone precursors, it can only be used during the period October 1 through April 30. A similar provision is in place for carbon monoxide, which is a wintertime pollutant.

- Seasonal or discrete credits are seen as likely prospects for users who wish to delay compliance for a few months, or who need to reduce emissions during a particular time period such as a peak period, in order to comply with a monthly or rolling monthly compliance averaging period.

32. Are there special rules for using credits created by shutdowns?

When a plant is shutdown and its production moved to an out-of-state facility, there are restrictions on the use of ERC created based on emission reductions, which occurred with the shutdown. The regulations state that these ERC can only be used within Massachusetts. It should be noted that if the company who is shutting down already has ERC in the bank from previously implemented emission reductions, these ERC are not restricted in the same manner as ERC, which are based on emission reductions from the shutdown.

33. If the party creating the ERC has not lived up to expectations but has sold the credit to someone else that is using it, will the DEP take enforcement action against both parties?

The DEP will take enforcement taken against the credit creator for failure to maintain the validity of the credit.

* * * *

For more information or applications, please see Permit Applications on the DEP Web Site, **www.state.ma.us/dep** or Contact the DEP Service Center at your local DEP Regional Office. You may also contact the DEP InfoLine at (617) 338-2255 (from area code 617 and outside of Massachusetts) or 1-800-462-0444 (from area codes 413 and 508.

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Applications Instructions

Section A
Facility Information

1. Facility:

· Facility Name	The actual facility name, not the corporate or other name.
· Street Address:	The physical location of the facility
· City, State, Zip Code	City name, State and nine digit zip code (if known) of the facility location
· Mailing Address	Mailing address for the facility, if different from physical location

2. Facility Contact Person:

· Name	Person located within the facility and who is completing the application or a person at the facility familiar with the application and plant operations.
· Title:	Title/position of contact person
· Telephone Number:	Area code, number and any extension of the person named as contact

3. Facility Owner:

· Name	Name of individual or corporation that owns facility
· Telephone Number:	Area code, number and any extension of the person named as contact

Section B
Applicability

Entry into the program is voluntary. Emission reductions are not eligible for consideration as an ERC, if said reductions are generated by an un-inventoried area source category (***e.g.***, small bakeries) or if said reductions are generated by biogenic sources (***e.g.***, trees).

Section C
Additional Items for Credit Criteria

Check and include any appropriate items in this section.

Section D
Certification of Legally Responsible Individual

- Print the name of the legally responsible company official.
- The legally responsible company official must sign the form.
- Fill in the Position/Title of the legally responsible company official.
- Fill in the Address of the legally responsible company official.
- Fill in the Phone Number starting with the area code of the legally responsible company official.
- Fill in the Fax Number starting with the area code of the legally responsible company official.
- Date the form.

Section E
Description of Emission Reduction Credit

- Check the appropriate pollutant box (es).
- Check the appropriate source of credit box.
- Check the appropriate generation strategy box. If other, please explain.
- Check the appropriate type of credit box. Mass-based credits are credits expressed in tons, created by implementing an emission reduction for a discrete time period. Rate-based credit strategies are expressed in units of tons per year.
- Check the appropriate type of certification box. Retrospective certifications are completed after an emission reduction strategy is implemented and utilize actual emission data. Prospective certifications are completed prior to implementation of an emission reduction strategy, and utilize projected allowable emissions.

· Check the appropriate season of credit generation box.

Section F
Calculation of Baseline for Stationary Point Sources

1. Description of source or connected emission units:

   a. Equipment/Process Line ID Number: Indicate the equipment and/or process line ID number described by this section.

   b. Type of Equipment: Describe the type of equipment, e.g. boiler

   c. Manufacturer: Manufacturer of the equipment.

   d. Model Number: The manufacturer's model number for the equipment. Do not use the serial number.

   e. Date of installation: Date or dates when the equipment and/or control equipment was installed.

   f. Modification(s) since installation (type & date): List type and date(s) of any subsequent modifications to the equipment, if applicable.

   g. DEP Air Quality approvals: List (i) Approval Number(s) and (ii) Date of Approval(s) for equipment.

2. Baseline Emission Rate (ER): Based on average historical values for the factors for the two-year period immediately preceding this application.

   a. Allowable Baseline Emission Rate: List the allowable baseline emission rate for the emission unit(s) seeking emission reduction credit.

   b. Actual Baseline Emission Rate: List the actual baseline emission rate for the emission unit(s) seeking emission reduction credit.

c. Baseline Emission Rate: Select the lower of 2a or 2b above.

d. Units of Baseline Emission Rate: List units of the emission rate such as, pounds per million BTU

3. Baseline Capacity Utilization (CU): Based on average historical values for the two-year period immediately preceding this application.

a. Allowable Capacity Utilization (CU): List the allowable capacity utilization for the emission unit(s) seeking emission reduction credit.

b. Actual Capacity Utilization (CU): List the actual capacity utilization for the emission unit(s) seeking emission reduction credit.

c. Baseline Capacity Utilization (CU): Select the lower of 3a or 3b above.

4. Baseline Hours of Operation: Based on average historical values for the two-year period immediately preceding this application.

a. Allowable Hours of Operation (H): List the allowable hours of operation for the emission unit(s) seeking emission reduction credit.

b. Actual Hours of Operation (H): List the actual hours of operation for the emission unit(s) seeking emission reduction credit.

c. Baseline Hours of Operation (H): Select the lower of 4a or 4b above.

5. Calculation of Baseline Emissions: Baseline emissions will be established for each **stationary source** according to the following formula: baseline = **ER** x (**CU** x **H**)

a. Baseline Emissions: Baseline emissions are the product of 2c, 3c and 4c above. (2c x 3c x 4c).

Section G
Alternative Base Year Determination

1. Answer the question by checking the appropriate box, either yes or no.

2. If the answer to the question was no, explain why another two-year period within the last five years was more representative of normal source operations.

Section H
Calculation of Post Reduction Emissions for Stationary Point Sources

1. Describe the overall control strategy, which will be used to reduce emissions, including timelines and scheduled for implementation, e.g. over-control of an emissions unit.

2. Post Reduction Emission Rate (ER): For each unit identified in section F, list the emission rates, which will be used to calculate the emission reductions after implementation of the control strategy described above, (include additional sheets to show calculations and use additional sheets if there are more than three units).

    a. Allowable Post Reduction Emission Rate: For prospective filings list the federally enforceable emission rate the applicant is proposing to create the emission reductions.

    b. Actual Post Reduction Emission Rate: For retrospective filings list the actual emission rate that created the emission reductions.

3. Post Reduction Capacity Utilization: For each unit identified in section F, list the capacity utilization rates, which will be used to calculate the emission reductions after implementation of the control strategy described above, (include additional sheets to show calculations and use additional sheets if there are more than three units).

    a. Allowable Post Reduction Capacity Utilization Rate: For prospective filings list the federally enforceable capacity utilization rate the applicant is proposing to create the emission reductions.

b. Actual Post Reduction Capacity Utilization Rate: For retrospective filings list the actual capacity utilization rate that created the emission reductions.

4. Post Reduction Hours of Operation: For each unit identified in section F, list the capacity utilization rates, which will be used to calculate the emission reductions after implementation of the control strategy described above, (include additional sheets to show calculations and use additional sheets if there are more than three units).

   a. Allowable Post Reduction Hours of Operation: For prospective filings list the federally enforceable hours of operation the applicant is proposing to create the emission reductions.

   b. Actual Post Reduction Hours of Operation: For retrospective filings list the actual hours of operation that created the emission reductions.

5. Calculation of Post Reduction Emissions: Baseline emissions will be established for each **stationary source** according to the following formula: baseline = **ER** x (**CU** x **H**)

   a. Calculation of Post Reduction Emissions for prospective filings is the product of 2a, 3a and 4a above.

   b. Calculation of Post Reduction Emissions for retrospective filings is the product of 2b, 3b and 4b above.

6. By checking the appropriate box, answer the question as to whether the emission reduction strategy involves the use of air pollution control equipment to reduce emissions

   ❑ If yes, complete and attach the appropriate Supplemental BWP form for air pollution control equipment. Indicate equipment and form used.

7.

   a. By checking the appropriate box, answer whether the emission reduction strategy involves installing new equipment or modifying existing equipment to implement the emission reduction strategy. (Prospective)

- If yes, attach additional information for the new equipment including manufactures brochures and equipment drawing plans. Also complete and attach the BWP supplemental forms that apply.

b. Answer the question as to whether the emission reduction strategy involved installing new equipment or modifying existing equipment to implement the emission reduction strategy by checking the appropriate box. (Retrospective)

- If yes, provide DEP Approval number

Section I
Calculation of Emission Reduction for Stationary Point Sources

1. Baseline Emissions: List the baseline emissions for each emissions unit as computed in Section F, Item 5a.

2. Post Reduction Emissions: List the baseline for emissions each emissions unit as computed in Section H, Item 5a or 5b.

3. Emission Reductions Prior to Compliance Assurance Factor: Compute the emission reductions by subtracting the post reduction emissions from the baseline emissions. Item I1. – Item I2.)

Section J
Method of Compliance Assurance

1. Baseline Method: Describe in detail the methods or sources used to verify the baseline emission rate (ER), capacity utilization (CU), hours of operation per day (H)), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, quality assurance, and quality control, use addition paper, if necessary.

2. Post Reduction Method: Describe in detail the methods or sources used to verify the post reduction emission rate (ER), capacity utilization (CU), hours of operation per day (H), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, quality assurance, and quality control, use addition paper, if necessary

3. Record keeping method: Describe in detail the type of records which will be kept to verify compliance with post reduction ER, CU, H, (e.g., testing/sampling results, hours of operation, etc.) use additional paper, if necessary.

Section K
Remaining Useful Life
(Applicable to shutdown credit only)

Check the applicable box concerning "Remaining Useful Life." Remaining useful life shall be ten (10) years except in those cases where the Department determines a shorter period is appropriate, or the applicant demonstrates to the Department's satisfaction that a period of longer than ten (10) years is warranted. The Department will use the following criteria for making the determination including, but not limited to: the age of the equipment; the type of equipment; maintenance history; operating history; and industry norms. In any case, the remaining useful life shall not exceed twenty (20) years. Please provide information to the Department relative to the determination of remaining useful life.

Section L
Ancillary Emissions

Answer the question as to whether the emission reduction strategy in sections I or J will result in the creation of new emissions either on site or from other sources, or will those emissions shift to another location or facility. If yes, please explain.

Section M
Calculation of Baseline for Stationary Area On-road Mobile & Off-road Mobile Sources

1. Provide a description of source(s) or connected emission units.

2. Baseline emission rate (ER) equals the emission rate as determined by the Department and EPA in the most recent emission inventory using EPA approved methods and emission factors including AP-42 and Volume IV for Area Source, or the EPA Off-road Study for off-road sources. Assumptions shall be consistent with the most recent adopted periodic emission inventory prepared by the Department.
   a. Allowable Baseline Emission Rate: List the allowable baseline emission rate for the emission unit(s) seeking emission reduction credit.
   b. Actual Baseline Emission Rate: List the actual baseline emission rate for the emission unit(s) seeking emission reduction credit.
   c. Baseline Emission Rate: Select the lower of 2a or 2b above.
   d. Units of Baseline Emission Rate: List units of the emission rate, e.g. pounds per million BTU

3. Baseline activity factor (ACT) of source – ACT equals the average activity factor expressed in a manner so as to be consistent with the units required by the emission rate, such as a number of gallons burned, or number of persons affected.
    a. Allowable Baseline Activity Factor: List the allowable baseline activity factor for the emission unit(s) seeking emission reduction credit.
    b. Actual Baseline Activity Factor: List the actual baseline activity factor for the emission unit(s) seeking emission reduction credit.
    c. Baseline Activity Factor (ACT): Select the lower of 3a or 3b above.
    d. Units of Baseline Activity Factor: Provide the units of the baseline activity factor, e.g. vehicle miles traveled.
4. Calculation of Baseline Emissions: Baseline emissions will be established for each **area source** according to the following formula: baseline = **ER** x **ACT.**
    a. Baseline Emissions: Baseline emissions are the product of 2c and 3c above (2c x 3c).

Section N
Alternative Base Year Determination

1. Answer the question by checking the appropriate box, either yes or no.

2. If the answer to the question was no, explain why another two-year period within the last five years was more representative of normal source operations.

Section O
Calculation of Post Reduction Emissions for Stationary Area, On-road Mobile & Off-road Mobile Sources

1. Describe the overall control strategy, which will be used to reduce emissions, including timelines and scheduled for implementation:

2. Post Reduction Emission rate (ER) – for each unit identified in section M, list the emission rates which will be used to calculate the emission reductions after implementation of the control strategy described above, include additional sheets to show calculations and use additional sheets if necessary.

a. Allowable Post Reduction Emission Rate: List the allowable post reduction emission rate for the emission unit(s) seeking emission reduction credit. (Prospective filings)

b. Actual Post Reduction Emission Rate: List the actual post reduction emission rate for the emission unit(s) seeking emission reduction credit. (Retrospective Filings)

3. Post Reduction Activity Factor (ACT) of source – ACT equals the average activity factor expressed in a manner so as to be consistent with the units required by the emission rate, such as a number of gallons burned, or number of persons affected:

a. Allowable Post Reduction Activity Factor: List the allowable post reduction activity factor for the emission unit(s) seeking emission reduction credit. (Prospective filings)

b. Actual Post Reduction Activity Factor: List the actual post reduction activity factor for the emission unit(s) seeking emission reduction credit. (Retrospective Filings)

4. Calculation of Post Reduction Emissions

a. Post Reduction Emissions: Post reduction emissions are the product of 2a and 3a above. (2ax3a) (Prospective filings)

b. Post Reduction Emissions: Post reduction emissions are the product of 2b and 3b above. (2b x 3b) (Retrospective filings)

5. By checking the appropriate box, answer whether the emission reduction strategy involves the use of air pollution control equipment to reduce emissions.

- If yes, complete and attach any appropriate Supplemental BWP form for air pollution control equipment. Indicate equipment and form used.

a. Answer the question as to whether the emission reduction strategy involves installing new equipment or modifying existing equipment to implement the emission reduction strategy by checking the appropriate box. (Prospective)

- If yes, attach additional information for the new equipment including manufactures brochures and equipment drawing plans. Also complete and attach the BWP supplemental forms that apply.

b. Answer the question as to whether the emission reduction strategy involved installing new equipment or modifying existing equipment to implement the emission reduction strategy by checking the appropriate box. (Retrospective)

· If yes, provide DEP Approval number.

Section P
Calculation of Emission Reduction for Stationary Area,
On-road Mobile & Off-road Mobile Sources

1. Baseline Emissions: List the baseline emissions from as computed in for each emissions unit in Section M, Item 4a.

2. Post Reduction Emissions: List the baseline emissions from as computed in for each emissions unit in Section O, Item 4a or 4b.

3. Emission Reductions Prior to Compliance Assurance Factor: Compute the emission reductions by subtracting the post reduction emissions from the baseline emissions. (Item 1. – Item 2.)

Section Q
Method of Compliance Assurance

1. Baseline Method: Describe in detail the methods that were used to verify the baseline emission rate (ER), and activity factor (ACT), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, quality assurance, and quality control, use addition paper, if necessary.

2. Post Reduction Method: Describe in detail the methods that were used to verify the post reduction emission rate (ER), and activity factor (ACT), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, quality assurance, and quality control, use addition paper, if necessary:

3. Record keeping method: Describe in detail the type of records which will be kept to verify compliance with post reduction ER, ACT, (e.g., testing/sampling results, hours of operation, etc.) use additional paper, if necessary:

Section R
Remaining Useful Life
(Applicable to shutdown credit only)

Check the applicable box concerning "Remaining Useful Life." Remaining useful life shall be ten (10) years except in those cases where the Department determines a shorter period is appropriate, or the applicant demonstrates to the Department's satisfaction that a period of longer than ten (10) years is warranted. The Department will use the following criteria for making the determination including, but not limited to: the age of the equipment; the type of equipment; maintenance history; operating history; and industry norms. In any case, remaining useful life shall not exceed twenty (20) years.

Section S
Ancillary Emissions

Answer the question as to whether the emission reduction strategy in sections P or Q will result in the creation of new emissions either on site or from other sources, or will those emissions shift to another location or facility. If yes, please explain.

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Application, Instructions & Support Material (PDF Version)

Application Completeness Checklist

☐ DEP Transmittal Form has been completed.

☐ All information requested in the AQ18 Application form has been supplied and no spaces left blank. (NA has been inserted for items that are not applicable).

☐ The Certification statement on page 1 of the application has been signed.

☐ Any additional information that shows emission calculations or assures compliance has been included in the application package.

☐ Three (3) copies of the entire application package and a copy of the Transmittal Form
have been submitted.

NOTE: No fee is required at this time. Please write NA next to the amount due in Section F of the Transmittal Form.

To submit a BWP AQ18 application package:

☐ Ensure all Checklist items have been completed.

☐ Three copies of the application package have been prepared and submitted with the DEP Transmittal Form to the DEP Regional Office responsible for the community in which the facility is located.

Department of Environmental Protection
BWP Permitting Program, Air Quality Section
_____* Regional Office

See the list of addresses for the appropriate DEP Regional Office

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Air Quality

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Application, Instructions & Support Material (PDF Version)

DEP Regional Offices and the Communities they Serve

DEP Western Regional Office

436 Dwight Street
Suite 402
Springfield, MA 01103
Phone: 413-784-1100
Fax: 413-784-1149

Adams	Colrain	Hampden	Monroe	Pittsfield	Tyringham
Agawam	Conway	Hancock	Montague	Plainfield	Wales
Alford	Cummington	Hatfield	Monterey	Richmond	Ware
Amherst	Dalton	Hawley	Montgomery	Rowe	Warwick
Ashfield	Deerfield	Heath	Monson	Russell	Washington
Becket	Easthampton	Hinsdale	Mount Washington	Sandisfield	Wendell
Belchertown	East Longmeadow	Holland	New Ashford	Savoy	Westfield
Bernardston	Egremont	Holyoke	New Marlborough	Sheffield	Westhampton
Blandford	Erving	Huntington	New Salem	Shelburne	West Springfield
Brimfield	Florida	Lanesborough	North Adams	Shutesbury	West Stockbridge
Buckland	Gill	Lee	Northampton	Southampton	Whately
Charlemont	Goshen	Lenox	Northfield	South Hadley	Wilbraham
Cheshire	Granby	Leverett	Orange	Southwick	Williamsburg
Chester	Granville	Leyden	Otis	Springfield	Williamstown
Chesterfield	Great Barrington	Longmeadow	Palmer	Stockbridge	Windsor
Chicopee	Greenfield	Ludlow	Pelham	Sunderland	Worthington
Clarksburg	Hadley	Middlefield	Peru	Tolland	

DEP Central Regional Office

627 Main Street
Worcester, MA 01605
Phone: 508-792-7650
Fax: 508-792-7621
TDD: 508-767-2788

Acton	Charlton	Hopkinton	Millbury	Rutland	Uxbridge
Ashburnham	Clinton	Hubbardston	Millville	Shirley	Warren
Ashby	Douglas	Hudson	New Braintree	Shrewsbury	Webster
Athol	Dudley	Holliston	Northborough	Southborough	Westborough
Auburn	Dunstable	Lancater	Northbridge	Southbridge	West Boylston
Ayer	East Brookfield	Leicester	North Brookfield	Spencer	West Brookfield
Barre	Fitchburg	Leominster	Oakham	Sterling	Westford
Bellingham	Gardner	Littleton	Oxford	Stow	Westminster
Berlin	Grafton	Lunenburg	Paxton	Sturbridge	Winchendon
Blackstone	Groton	Marlborough	Pepperell	Sutton	Worcester
Bolton	Harvard	Maynard	Petersham	Templeton	
Boxborough	Hardwick	Medway	Phillipston	Townsend	
Boylston	Holden	Mendon	Princeton	Tyngsborough	
Brookfield	Hopedale	Milford	Royalston	Upton	

DEP Southeast Regional Office

20 Riverside Drive
Lakeville, MA 02347
Phone: 508-946-2700
Fax: 508-947-6557
TDD: 508-946-2795

Abington	Dartmouth	Freetown	Mattapoisett	Provincetown	Tisbury
Acushnet	Dennis	Gay Head	Middleborough	Raynham	Truro
Attleboro	Dighton	Gosnold	Nantucket	Rehoboth	Wareham
Avon	Duxbury	Halifax	NewBedford	Rochester	Wellfleet
Barnstable	Eastham	Hanover	North Attleborough	Rockland	West Bridgewater
Berkley	East Bridgewater	Hanson	Norton	Sandwich	Westport
Bourne	Easton	Harwich	Norwell	Scituate	West Tisbury
Brewster	Edgartown	Kingston	Oak Bluffs	Seekonk	Whitman
Bridgewater	Fairhaven	Lakeville	Orleans	Sharon	Wrentham
Brockton	Fall River	Mansfield	Pembroke	Somerset	Yarmouth
Carver	Falmouth	Marion	Plainville	Stoughton	
Chatham	Foxborough	Marshfield	Plymouth	Swansea	
Chilmark	Franklin	Mashpee	Plympton	Taunton	

DEP Northeast Regional Office

205 Lowell Street
Wilmington, MA 01887
Phone: 978-661-7600
Fax: 978-661-7615
TDD: 978-661-7679

Amesbury	Chelmsford	Hingham	Merrimac	Quincy	Wakefield
Andover	Chelsea	Holbrook	Methuen	Randolph	Walpole
Arlington	Cohasset	Hull	Middleton	Reading	Waltham
Ashland	Concord	Ipswich	Millis	Revere	Watertown
Bedford	Danvers	Lawrence	Milton	Rockport	Wayland
Belmont	Dedham	Lexington	Nahant	Rowley	Wellesley
Beverly	Dover	Lincoln	Natick	Salem	Wenham
Billerica	Dracut	Lowell	Needham	Salisbury	West Newbury
Boston	Essex	Lynn	Newbury	Saugus	Weston
Boxford	Everett	Lynnfield	Newburyport	Sherborn	Westwood
Braintree	Framingham	Malden	Newton	Somerville	Weymouth
Brookline	Georgetown	Manchester-By-The-Sea	Norfolk	Stoneham	Wilmington
Burlington	Gloucester	Marblehead	North Andover	Sudbury	Winchester
Cambridge	Groveland	Medfield	North Reading	Swampscott	Winthrop
Canton	Hamilton	Medford	Norwood	Tewksbury	Woburn
Carlisle	Haverhill	Melrose	Peabody	Topsfield	

Massachusetts Department of Environmental Protection
Bureau of Waste Prevention – Air Quality

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

A. Facility Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

1. Facility - the site or works at which the regulated activity occurs:

Name

Street Address | City

State | Zip Code

2. Mailing address:

Street/PO Box: | e-mail address (optional)

City | State

Zip | ( ) - ext. Telephone Number

3. Facility contact person:

Name

Title | ( ) - ext. Telephone Number

4. Facility owner:

Owner or corporation name

( ) - ext.
Telephone Number

B. Applicability

310 CMR 7.00 Appendix B(3) applies to the owner/operator of eligible sources including stationary point sources.

C. Additional Items for Credit Criteria

In addition to completion of this form, the following items may also be included, when applicable, to satisfy the credit criteria (surplus, real, enforceable, permanent, quantifiable) of a complete application.

Check the items included:

☐ Manufacturer's Specifications and Brochures for Process Equipment, Add-on Air Pollution Control Equipment, Fans/Blowers, etc.

☐ Supplemental Forms for Add-on Air Pollution Control Equipment, if applicable.

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

C. Additional Items for Credit Criteria (cont.)

☐ Schematic Process Diagram – Dimensional plan showing process equipment, hoods ductwork, dampers, fans, temperature/pressure sensing devices, other monitors, air pollution control equipment, and all vents, by passes or discharges to the atmosphere.

☐ Calculations – Detailed calculation sheets showing the manner in which pertinent quantitative data, including emission calculations, were determined.

☐ Purchase or other records to document raw material or fuel usage rates.

☐ Compliance Plan – Detailed description of the compliance assurance methods that will be employed and or any supporting information.

☐ Other, please describe

D. Certification of Legally Responsible Individual

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and, based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

Name

Signature of responsible official

Position/title

Street Address

City

State

Zip Code

( ) - ext.
Telephone Number

( ) -
Fax Number

Date

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

E. Description of Emissions Reduction Credit

1. Pollutant(s) for which ERC is sought:

☐ VOC ☐ NO_X ☐ CO

2. Source of Credit:

☐ Stationary Point (Complete sections F through L of this form)

☐ Stationary Area* ☐ Off-road Mobile* ☐ On-road Mobile*

*(Complete Sections M through Q of this form)

3. Generation Strategy:

☐ Shutdown ☐ Curtailment ☐ Early Implementation

☐ Overcontrol ☐ Other _____

4. Type of Credit:

☐ Mass – based (tons) ☐ Rate – based (tons per year)

5. Type of Certification:

☐ Retrospective ☐ Prospective

6. Season of Credit Generation:

☐ Ozone Season (May 1 – September 30) ☐ Non-ozone Season

☐ Both

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

F. Calculation of Baseline for Stationary Point Sources

1. Description of source or connected emission units (use additional pages if necessary)

	Unit 1	Unit 2	Unit 3
a. Equipment/Process line ID #			
b. Type of equipment			
c. Manufacturer			
d. Model number			
e. Date of installation			
f. Modification(s) since installation (type and date)			
g. DEP Air Quality approvals			
i. Approval numbers			
ii. Dates of approvals			

2. Baseline Emissions Rate (ER)

	Unit 1	Unit 2	Unit 3
a. Allowable baseline emission rate			
b. Actual baseline emission rate			
c. Baseline emission rate (ER) * (lower of 2a or 2b)			
d. Units of Baseline Emissions Rate (ER)			

F. Calculation of Baseline for Stationary Point Sources (cont.)

3. Baseline Capacity Utilization

	Unit 1	Unit 2	Unit 3
a. Allowable capacity utilization (CU)			
b. Actual capacity utilization (CU)			
c. Baseline capacity utilization (CU) *(lower of 3a or 3b)			

4. Baseline Hours of Operation

	Unit 1	Unit 2	Unit 3
a. Allowable hours of operation (H)			
b. Actual hours of operation (H)			
c. Baseline hours of operation (H) *(lower of 4a or 4b)			

5. Calculation of Baseline Emissions

	Unit 1	Unit 2	Unit 3
a. Baseline emissions (2c x 3c x 4c)			

* ER, CU and H are based on historical values for the factors for two representative years within the five years immediately prior to the date of the application.

G. Alternative Base Year Determination

1. In the previous section F were the baseline emission rate (ER), actual capacity utilization (CU), and actual hours of operation (H) based upon an average value for the two year period preceding this application?

   ☐ Yes ☐ No

2. If no, what two year period was used and why?

H. Calculation of Post Reduction Emissions for Stationary Point Sources

1. Describe the overall control strategy, which will be used to reduce emissions, including timelines and scheduled for implementation:

2. Post Reduction Emission rate (ER) – for each unit identified in section F, list the emission rates which will be used to calculate the emission reductions after implementation of the control strategy described above, (include additional sheets to show calculations and use additional sheets if there are more than three units).

	Unit 1	Unit 2	Unit 3
a. Allowable post reduction emission rate (prospective filings)			
b. Actual post reduction emission rate (retrospective filings)			

3. Post Reduction Capacity Utilization

	Unit 1	Unit 2	Unit 3
a. Allowable capacity utilization (prospective filings)			
b. Actual capacity utilization (retrospective filings)			

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

H. Calculation of Post Reduction Emissions for Stationary Point Sources (cont.)

4. Post Reduction Hours of Operation

	Unit 1	Unit 2	Unit 3
a. Allowable hours of operation (prospective filings)			
b. Actual hours of operation (retrospective filings)			

5. Calculation of Post Reduction Emissions

	Unit 1	Unit 2	Unit 3
a. Post reduction emissions (prospective filings)			
b. Post reduction emissions (retrospective filings)			

6. Does the emission reduction strategy involve the use of air pollution control equipment to reduce emissions?

☐ Yes ☐ No

If yes, complete and attach the appropriate Supplemental BWP form for air pollution control equipment. Indicate equipment and forms used:

7a. Will the facility be installing new equipment or modifying existing equipment to implement the emission reduction strategy?

☐ Yes ☐ No

If yes, attach additional information for the new equipment including manufactures brochures and equipment drawing plans. Also complete and attach the BWP supplemental forms that apply.

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

H. Calculation of Post Reduction Emissions for Stationary Point Sources (cont.)

7b. Did the facility install new or modify existing equipment to implement the emission reduction strategy.

☐ Yes ☐ No

If yes, Approval # _____

Note: The installation of new equipment may require approval under plan approval regulations (310 CMR 7.00). Approval under 310 CMR 7.00 may require submittal of additional BWP AQ related forms. In such cases, contact the appropriate DEP regional office before applying for approvals.

I. Calculation of Emission Reduction for Stationary Point Sources

	Unit 1	Unit 2	Unit 3
1. Baseline emissions (item 5a section F)			
2. Post reduction emissions (item 5a or 5b section H)			
3. Emissions reduction prior to compliance assurance (1-2)			

J. Method of Compliance Assurance

1. **Baseline Method:** Describe in detail, the methods or sources used to verify the baseline emission rate (ER), capacity utilization (CU), hours of operation per day (H)), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, quality assurance, and quality control, use addition paper, if necessary:

J. Method of Compliance Assurance (cont.)

2. **Post Reduction Method:** Describe in detail, the methods or sources used to verify the post reduction emission rate (ER), capacity utilization (CU), hours of operation per day (H), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, quality assurance, and quality control, use addition paper, if necessary:

3. **Record keeping method:** Describe in detail the type of records which will be kept to verify compliance with post reduction ER, CU,H, (e.g., testing/sampling results, hours of operation, etc.) use additional paper, if necessary:

K. Remaining Useful Life (application to shutdown credit only)

☐ 10 Years

☐ Other _____Years (if other than 10 years, provide additional information below

Addition information should include but is not limited to: the age of the equipment, type of equipment maintenance history including maintenance logs and other maintenance records, operating history and industry norms.

L. Ancillary Emissions

1. Did or will implementation of the emission reduction strategy in sections I or J result in the creation of new emissions either on site or from other sources, or will those emissions shift to another location or facility?

   ☐ No ☐ Yes (If yes, please describe)

M. Calculation of Baseline for Stationary Area, On-road Mobile Sources

1. Description of source or connected emission units (use additional pages if necessary):

2. Baseline emission rate (ER) of source:

   a. Allowable baseline emission rate

   b. Actual baseline emission rate

   c. Baseline emission rate (ER)

3. Baseline activity factor (ACT) of source – ACT equals the average activity factor expressed in a manner so as to be consistent with the units required by the emission rate, such as a number of gallons burned, or number of persons affected:

   a. Allowable baseline activity factor

   b. Actual baseline activity factor

   c. Baseline activity factor (ACT) (lower of 3a or 3b)

   d. Units of baseline activity factor

4. Calculation of baseline emission:

   a. Baseline emissions (2c x 3c)

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

N. Alternative Base Year Determination

1. In the previous section M were the baseline emission rate (ER), actual Activity Factor (ACT) based upon an average value for the two- year period preceding this application?

   ☐ Yes ☐ No

   If no, what two year period was used and why?

O. Calculation of Post Reduction Emissions for Stationary Area, On-road Mobile & Off-road Mobile Sources

1. Describe the overall control strategy which will be used to reduce emissions, including timelines and scheduled for implementation:

2. Post Reduction Emission rate (ER) – for each unit identified in section F, list the emission rates which will be used to calculate the emission reductions after implementation of the control strategy described above, (include additional sheets to show calculations and use additional sheets if there are more than three units.

   a. Allowable post reduction emission rate (prospective filings):

   b. Actual post reduction emission rate (retrospective filings):

3. Post Reduction Activity Factor (ACT) of source – ACT equals the average activity factor expressed in a manner so as to be consistent with the units required by the emission rate, such as a number of gallons burned, or number of persons affected:

   a. Allowable post reduction activity factor (prospective filings)

   b. Actual post reduction activity factor (retrospective factor)

O. Calculation of Post Reduction Emissions for Stationary Area, On-road Mobile & Off-road Mobile Sources (cont.)

4. Calculation of Post Reduction Emissions:

   a. Post reduction emissions (prospective filings) (2a x 3a) _____

   b. Post reduction emissions (retrospective filings) (2b x 3b) _____

5a. (Stationary Area Sources) Will the facility be installing new equipment or modifying existing equipment to implement the emission reduction strategy?

☐ Yes ☐ No

If yes, attach additional information for the new equipment including manufactures brochures and equipment drawing plans. Also complete and attach the BWP supplemental forms that apply.

5b. (Stationary Area Sources) Did the facility install new or modify existing equipment to implement the emission reduction strategy?

☐ Yes ☐ No

If yes, Approval # _____

P. Calculation of Emission Reduction for Stationary Area, On-road Mobile & Off-road Mobile Sources

1. Baseline emissions (item 4a section M) _____

2. Post Reduction emissions (item 4a or 4b section O) _____

3. Emission reduction prior to compliance assurance (1-2) _____

BWP AQ 18

Creation of Emission Reduction Credits (ERC)

Transmittal Number

Q. Method of Compliance Assurance

1. **Baseline Method:** Describe in detail the methods that were used to verify the baseline emission rate (ER), and activity factor (ACT), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, guality assurance, and quality control, use addition paper, if necessary:

2. **Post reduction method:** Describe in detail the methods that were used to verify the post reduction emission rate (ER), and activity factor (ACT), (e.g., stack testing, sampling, mass balance, etc.). Include a detailed description on testing frequency, quality assurance, and quality control, use addition paper, if necessary:

3. **Record keeping method:** Describe in detail the type of records which will be kept to verify compliance with post reduction ER, ACT, (e.g., testing/sampling results, hours of operation, etc.) use additional paper, if necessary:

R. Remaining Useful Life (application to shutdown credit only)

☐ 10 Years

☐ Other _____Years (if other than 10 years, provide additional information below

Addition information should include but is not limited to: the age of the equipment, type of equipment maintenance history including maintenance logs and other maintenance records, operating history and industry norms.

S. Ancillary Emissions

1. Did or will implementation of the emission reduction strategy result in the creation of new emissions either on site or from other sources, or will those emissions shift to another location or facility?

☐ Yes ☐ No